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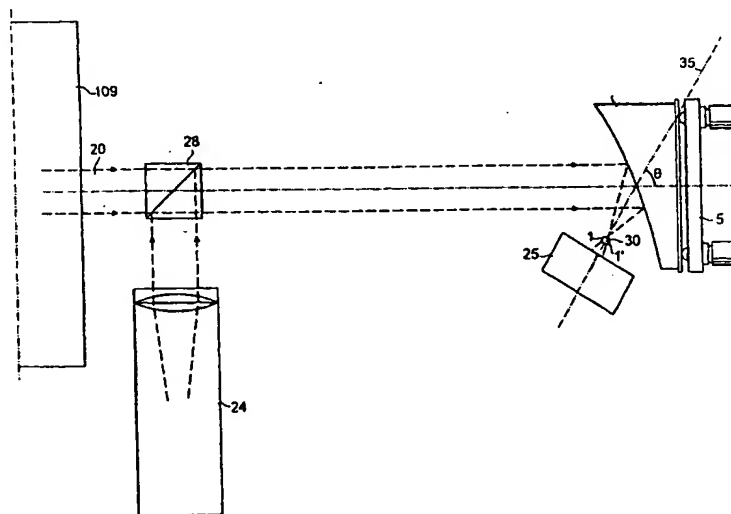
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(54) Title: FIBER SPLICER



(57) Abstract: Optical fibers (1, 1') are fusion spliced to each other by using a CO₂ laser (109) having an emission wavelength of 9.3 μm . The heat absorption of the fibers is higher and the variation of the absorption for small deviations of the wavelength is smaller than at the conventional wavelength of 10.6 μm . As a result, less laser power is needed, the laser construction may be more compact and safety problems can easier be handled. The optical arrangement for the light beam of the CO₂ laser includes deflecting and focusing the collimated laser beam (20) emitted by the laser using a mirror (10) having a curved surface of concave nearly paraboloid shape, the splice position (30) located at a small distance of the focus of the mirror and well outside the collimated beam.

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